



## Bi-Weekly Drought Brief Monday, December 22, 2014

---

### CURRENT CONDITIONS

**Recent Precipitation:** Recent storms have improved California water conditions, providing a meaningful uptick in many of the state's reservoirs. However, this precipitation is a small step in the right direction amidst the multi-year drought. California's extreme drought conditions have evolved over several years of rainfall deficits. Refilling reservoirs and rebuilding the snowpack will take a series of additional, colder storms through January, February, and March. Recharging underground aquifers will require even more precipitation and time. It is very important for Californians to continue conserving water and follow drought-related directives from water agencies.

Below are precipitation totals (in inches) from Monday, December 15 through Monday, December 22, and observed rainfall amounts for the water year (beginning October 1, 2014 to September 30, 2015).

- |                                      |  |
|--------------------------------------|--|
| • <b>Bakersfield:</b> 0.31" (2.52")  | • <b>Pacific House:</b> 2.64" (13.88") |
| • <b>Folsom Dam:</b> 6.25" (16.68)   | • <b>Riverside:</b> 0.42" (2.24")      |
| • <b>Fresno:</b> 0.49" (3.19")       | • <b>Redding:</b> 5.80" (21.72")       |
| • <b>Hetch Hetchy:</b> 1.05" (8.35") | • <b>Sacramento:</b> 1.66" (9.22")     |
| • <b>Los Angeles:</b> 0.57" (4.43")  | • <b>San Diego:</b> 0.84" (4.79")      |
| • <b>Modesto:</b> 1.61" (7.38")      | • <b>Shasta Dam:</b> 7.80" (34.16")    |
| • <b>Oroville:</b> 2.40" (19.16")    | • <b>Willits:</b> 4.04" (26.08")       |

**Weather Prediction and Outlook:** Forecasts from the National Weather Service Climate Prediction Center (CPC) indicate uncertainty about continued wet conditions. The Center's new January, February, and March seasonal precipitation outlook predicts that there is a 33-39% probability in extreme Northern California and a 40-49% probability that the remainder of California could experience above average precipitation. The trend for above average temperatures (50-59% probability) for California also looks to continue which would translate into less accumulated snow pack in the mid-elevations of the Sierra.

**Reservoir Levels (% capacity):** Runoff generated from the recent storms has been fairly limited for the four major Sacramento Valley reservoirs: Lake Shasta, Lake Oroville, New Bullards Bar, and Folsom Lake. However, the recent storms have at least put an end to the declining reservoir storage levels. As of December 21, the four Sacramento Valley reservoirs are still far below average to date.

[Reservoir Levels](#) as of December 21 remain low, including: Don Pedro 39%; Exchequer 7%; Folsom Lake 40%; Lake Oroville 35%; Millerton Lake 35%; New Melones 22%; Pine Flat 13%; San Luis 35%; Lake Shasta 35%; and Trinity Lake 31%. An update of water levels at [other smaller reservoirs](#) is also available.

Of California's major water supply reservoirs, Lake Shasta gained the most storage from recent storms: Approximately 472,000 acre-feet, or enough to supply roughly 970,000 typical homes for a year. Shasta rose from 23 percent of capacity on December 1 to 37 percent of capacity. Lake Shasta's current reservoir level, while improved, is lower than when the Governor declared a drought emergency last January. In fact, Lake Shasta held 1.7 million acre-feet of water at this time last year, but now holds 1.69 million acre-feet, due to recent storms. The reservoir would need to double its water supply to reach its average capacity level for this time of year. The situation is similar at Oroville, California's second largest reservoir. Folsom Reservoir storage has increased to 80% of average for this date and almost twice as much as last year at this time. However, this reservoir is critical for local and Central Valley water supplies, Delta water operations and environmental protection. With Folsom and other reservoirs still below needed storage levels, it will continue to play important meeting needed water supplies.

**Fire Activity:** CAL FIRE has responded to 5,597 wildfires across the state since January 1, burning 90,606 acres in State Responsibility Areas (SRA). This year's fire activity is above the year-to-date average of 4,620 wildfires on 88,107 acres. CAL FIRE responded to over 12 new wildfires over the past two weeks.

Recent rains and cooler temperatures have lowered the current threat of wildfires across much of the state. While rainfall totals in December are predicted to be higher than normal, it will take more storms with heavy rain to give the larger vegetation the time to absorb the water and raise their fuel moisture levels. Until that happens, even with the recent rain, the vegetation can easily dry back out during extended periods of warm weather. As drought conditions continue to have a hold on California, CAL FIRE is maintaining staffing that meets the current threat and continues to monitor weather conditions closely and has the ability to increase staffing should weather conditions change.

**Statewide Open Burn Ban Update:** The recent rains and lowered fire threat have allowed CAL FIRE to lift the outdoor burn bans across much of the State. Currently there are 50 counties where CAL FIRE has lifted the burn ban. The [burn ban](#) prohibits certain outdoor burning in the SRA. For those areas where the ban has been lifted, daily fire and weather conditions will dictate whether burning is permissible that day.

**Vulnerable Water Systems:** The State Water Board's [Drinking Water Program](#) continues to provide technical and funding assistance to several communities facing drinking water shortages, and is monitoring water systems across the state to determine if new support is needed. As of this week, a total to date of over \$14.5 million has been identified for specific emergency drinking water projects out of \$15 million appropriated in March for this purpose.

### **KEY ACTION ITEMS FROM THIS WEEK**

- **Update on Real-Time Water Operations:** When rains began on December 1, the State Water Project (SWP) and Central Valley Project (CVP) ramped up their pumping to capture and move into storage as much storm water as possible. During December 1 to December 21, the SWP and CVP pumped 223,000 acre-feet of water into storage at San Luis Reservoir for use in 2015. More recently, in a move aimed at reducing risk to Delta smelt and potentially avoiding more severe water supply impacts, operators of the SWP and CVP have proactively reduced pumping in the Delta. Combined pumping levels for both projects will decrease from about 11,000 cubic feet per second (CFS) to roughly 4,500 CFS.

Turbidity provides cover from predators for federally threatened Delta smelt and improves feeding conditions for the fish. The turbidity plume generated as the first big storm of the winter churns stream beds and sweeps away debris may draw Delta smelt closer to the water project pumps in the south Delta. The Department of Water Resources and the U.S. Bureau of Reclamation, which operate the SWP and the CVP respectively, are coordinating Delta operations closely with federal and state wildlife agencies to monitor turbidity levels in the Delta and the movement of Delta smelt, and will adjust pumping levels accordingly.

- **U.S. Drought Monitor Updates Conditions for California; Improved, but Still Severe:** The U.S. Drought Monitor released [updated ratings for California's drought](#) on Thursday, December 18, showing improvements to the state's classifications of "extreme" and "exceptional drought" but the state's classification for "severe drought" remains steady at 94%.
- **Federal, State Agencies Release Interagency 2015 Drought Strategy Draft:** Last week provided much needed and significant precipitation to California. But similar levels of rain and snow would have to fall in California consistently throughout this winter and spring for the state to begin to recover from extreme drought conditions. In order to prepare for the worst and assume that dry conditions will continue, the five federal and state agencies primarily involved in the operation and regulation of the Central Valley Project and the State Water Project have jointly released a draft [Interagency 2015 Drought Strategy which outlines](#) anticipated drought response actions that have been planned by the U.S. Bureau of Reclamation, Fish and Wildlife Service, National Marine Fisheries Service, the Department of Water Resources, and the Department of Fish and Wildlife should the drought stretch into its fourth year.
- **California's Groundwater Basins Hit Historic Lows Due to Increased Pumping from the Drought:** According to the [report on groundwater issued on December 2](#) by the Department of Water Resources, groundwater resources have provided an increasingly larger share of California's water supply during the current drought. The report details groundwater level changes, potential water shortages, land subsidence, farmland fallowing and gaps in groundwater monitoring.
- **State Board Held Informal Workshop to Discuss Potential Future Water Conservation Actions:** The State Water Board held the [Urban Water Conservation Workshop](#), an informal public meeting, on Wednesday, December 17, at the Metropolitan Water District of Southern California office to solicit input on potential next steps related to urban water conservation. While State Board data shows that 90 billion gallons of water has been conserved from June 2014 to October 2014, as compared to the same time period in 2013, continued conservation and additional actions will likely be needed should the drought continue into 2015 as predicted.
- **Help Available for Wildfire-Impacted Ranches and Private Forestland:** On Wednesday, December 17, USDA's Natural Resources Conservation Service (NRCS) made funds available through its [Catastrophic Fire Recovery Initiative](#) to address the immediate impacts of fire on natural resources on land that has suffered impacts from recent California wildfires. This assistance is available to agricultural operators or private non-industrial forest owners. Applications will be accepted and considered for possible funding on a continuing basis.

- **State Water Board Releases Interactive Tool to Locate Nitrate-Impacted Wells:** The State Water Board on Wednesday, December 3, [launched](#) a new interactive online search tool, called “Is My Property Near a Nitrate-Impacted Water Well” that helps users determine if privately owned water wells are located within 2,000 feet of a “nitrate-impacted well.” Nitrate-impacted water wells are defined as those that have had at least one detection of the pollutant at a level above the health standard since 2000.

While more than 95% of Californians receive drinking water from public water systems that are subject to regular testing and must meet safe drinking water standards, there is no requirement for private well testing. The State Board recommends that private well owners test their wells annually using an accredited drinking water laboratory.

- **Emergency Food Aid, Rental and Utility Assistance:** The Department of Social Services (CDSS) has provided to date over 431,530 boxes of food to community food banks in drought-impacted counties. Approximately 360,700 boxes of food have been picked up by 191,730 households. By this Friday, December 26, an additional 6,000 boxes will be delivered to three counties. Local food banks continue to target food aid to residents most impacted by drought.

The non-profit group La Cooperativa continues to distribute the \$10 million state-funded emergency rental assistance to impacted families and individuals across counties most impacted by the drought. As of Thursday, December 11, the Department of Housing and Community Development (HCD) has reported that a total of \$8,332,163 is committed; and \$6,927,833 in funds has been issued to 4,272 applicants in 20 counties.

The Department of Community Services and Development (CSD) has created a \$600,000 program to help families pay their water bills. This program targets families through 10 agencies that are experiencing “exceptional” drought. As of Friday, December 12, CSD has reported that a total of \$438,022 has been issued to 2,402 households.

CSD has also implemented a \$400,000 Migrant and Seasonal Farmworker (MSFW) drought assistance program, in coordination with the California Human Development (CHD), Central Valley Opportunity Center (CVOC), Center for Employment Training (CET) and Proteus, which provides assistance in employment training and placement services to individuals impacted by the drought. As of Friday, December 12, 127 clients are enrolled in employment training programs, 20 clients have obtained employment, and 105 clients are receiving employment support services. CSD has also reported that a total of \$253,503 has been spent to assist participants in completing training employment programs.

- **California, Arizona, and Nevada Agree to Voluntary Plan to Prevent Lake Mead Shortage:** The Metropolitan Water District (MWD) of Southern California, the Central Arizona Project and the Southern Nevada Water Authority on Thursday, December 11, agreed to voluntary changes in [Colorado River water management practices](#) that would help reduce the amount of water used by California, Arizona and Nevada and hopefully prevent a shortage from being declared in Lake Mead.

A 14-year drought in the Colorado River Basin has left Lake Mead at about 40% full and only about 10 feet away from the declaration of a shortage. If a shortage were to be declared, Colorado River water users including California would see a dramatic reduction in water allocations.

- **MWD Revises Water Supply Allocation Plan; Adds \$40 Million to Rebate Program:** In advance of another possible dry year, the Metropolitan Water District (MWD) of Southern California Board of Directors [revised the district's water allocation plan](#) on Tuesday, December 9, and added \$40 million to its conservation rebate budget. The adjusted water allocation plan distributes MWD's imported supplies among its 26 member agencies during shortages and establishes a surcharge for excess water use. If drought conditions persist, the board could consider triggering the allocation plan in the first quarter of 2015.
- **Water Saving Tips Promoted Across the State:** The state's newly improved water conservation website, [SaveOurWater.com](#), is promoting the "Don't Waste Summer" campaign. This campaign provides a new conservation tip each day for the 100 days of summer. Supporters can sign up for daily email tips, and share Save Our Water's [Twitter](#) and [Facebook](#) feeds for this public awareness campaign.
- **Drought Response Funding:** The \$687 million in state drought funding that was appropriated in March through emergency legislation continues to advance toward meeting critical needs. Nearly \$625 million of the emergency funds appropriated in March came from sources dedicated to capital improvements to water systems. Since March, state agencies have expedited grant approvals, getting \$21 million immediately allocated to grantees that were pre-approved for certain projects. As planned in March, the next \$200 million of expedited capital funding was awarded in October, and the remaining \$250 million will be granted by fall next-year. State government has also appropriated tens of millions in funding to CAL FIRE over its typical budget to enable staffing-up fire crews much earlier this fire season.
- **Governor's Drought Task Force:** The Task Force continues to take actions that conserve water and coordinate state response to the drought.

### Local Government

- **Local Emergency Proclamations:** A total of 61 local Emergency Proclamations have been received to date from city, county, and tribal governments, as well as special districts:
  - **26 Counties:** Glenn, Inyo, Humboldt, Kern, Kings, Lake, Madera, Mariposa, Mendocino, Merced, Modoc, Napa, Plumas, Santa Barbara, San Bernardino, San Joaquin, San Luis Obispo, Shasta, Siskiyou, Sonoma, Sutter, Trinity, Tulare, Tuolumne, Yuba, and El Dorado.
  - **13 Cities:** City of Willits (Mendocino County), City of St. Helena (Napa County), City of Calistoga (Napa County), City of American Canyon (Napa County), City of Santa Barbara (Santa Barbara County), City of Montague (Siskiyou County), City of Live Oak (Sutter County), City of San Juan Bautista (San Benito County), City of Lodi (San Joaquin County), City of Portola (Plumas County), City of Ripon (San Joaquin County), City of Rio Dell (Humboldt County), and City of West Sacramento (Yolo County).

- **9 Tribes:** Hoopa Valley Tribe (Humboldt County), Yurok Tribe (Humboldt County), Tule River Indian Tribe (Tulare County), Karuk Tribe (Siskiyou/Humboldt Counties), Sherwood Valley Pomo Indian Tribe (Mendocino County), Yocha Dehe Wintun Nation (Yolo County), Cortina Indian Rancheria (Colusa County), Kashia Band of Pomo Indians of the Stewarts Point Rancheria (Sonoma County), and Picayune Rancheria of Chukchansi Indians (Madera County).
- **13 Special Districts:** Brooktrails Township (Mendocino County), Lake Don Pedro Community Services District (Stanislaus County), Placer County Water Agency (Placer County), Twain Harte Community Services District (Tuolumne County), Carpinteria Valley Water District (Santa Barbara County), Meiners Oaks Water District (Ventura County), Mariposa Public Utility District (Mariposa County), Goleta Water District (Santa Barbara County), Montecito Water District (Santa Barbara County), Tuolumne Utilities District (Tuolumne County), Mountain House Community Service District (San Joaquin County), Nevada Irrigation District (Nevada County), and Upper San Gabriel Valley Municipal Water District (Los Angeles County).
- **Water Agency Conservation Efforts:** The Association of California Water Agencies (AWCA) [has identified](#) several hundred local water agencies that have implemented water conservation actions. These water agencies [are responding to the drought](#) by implementing conservation programs, which include voluntary calls for reduced water usage and mandatory restrictions where water shortages are worst.
- **County Drought Taskforces:** A total of 30 counties have established drought task forces to coordinate local drought response. These counties include: Butte, Glenn, Humboldt, Imperial, Kern, Kings, Lake, Madera, Mendocino, Merced, Modoc, Monterey, Napa, Nevada, Orange, Placer, Plumas, Sacramento, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Siskiyou, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, and Yolo.
- **Tribal Taskforce:** A total of 3 tribes have established drought task forces to coordinate tribal drought response. These tribes include: Hoopa Valley Tribe (Humboldt County), Yurok Tribe (Humboldt Counties) and Sherwood Valley Tribe (Mendocino County).

## DROUGHT RELATED WEBSITES FOR MORE INFORMATION

### [Drought.CA.Gov](#): California's Drought Information Clearinghouse

State's Water Conservation Campaign, [Save our Water](#)  
Local Government, [Drought Clearinghouse and Toolkit](#)

California Department of Food and Agriculture, [Drought information](#)

California Department of Water Resources, [Current Water Conditions](#)

California Data Exchange Center, [Snow Pack/Water Levels](#)

California State Water Resources Control Board, Water Rights, [Drought Info and Actions](#)

California Natural Resources Agency, [Drought Info and Actions](#)

State Water Resources Control Board, Drinking Water, [SWRCB Drinking Water Program](#)

California State Water Project, [Information](#)

[U.S. Drought Monitor](#) for Current Conditions throughout the Region

[U.S. Drought Portal](#), National Integrated Drought Information System (NIDIS)

National Weather Service [Climate Predictor Center](#)

USDA Drought Designations by County [CA County Designations](#)

USDA Disaster and Drought Assistance Information [USDA Programs](#)

U.S. Small Business Administration Disaster Assistance Office: [www.sba.gov/disaster](http://www.sba.gov/disaster)